

Hot Work: Hazard Awareness and Safe Practices

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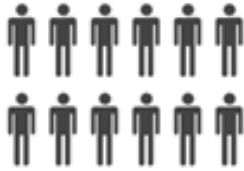
September 18, 2019



IT'S A BIG WORLD. LET'S PROTECT IT TOGETHER.™

4,440

STRUCTURED FIRES INVOLVED HOT WORK PER YEAR



12 Civilian deaths are caused per year from these fires



208 Civilian injuries are caused per year from these fires



\$287M In direct property damage results from these fires per year.

58%

OF FIRES OCCUR IN OR ON NON-HOME PROPERTIES



Any activities that
uses or produces

FLAME
SPARK
HEAT



WHAT IS HOT WORK?





Recognition Evaluation Control

3-Step Approach to Hot Work Safety



Don't do the hot work



Move the work



Move the combustibles



Shield the combustibles



Schedule the work



5-Ways to ensure Hot Work Safety



CLASSROOM

Is a Fire Watch Required?

1. Did the PAI or AHJ tell you to have a fire watch? **No**

2. Is hot work to be done in a designated area that has been examined and still qualifies as a designated area? **No**

3. Is hot work to be done where other than a minor fire might develop? **No**

4. Is hot work to be done where flammables or combustibles are more than 35 ft (11 m) and are easily ignited by sparks? **No**

5. Is hot work openings in combustibles? **No**

6. Is hot work are being done? **No**

7. Is the open that does NFPA 51B? **No**

8. Are you un questions? **No**

HOT WORK PERMIT
 Seek an alternative method if possible!
 Before initiating hot work, certain precautions are in place as required by NFPA 51B and ANSI Z49.1. Make sure an appropriate fire extinguisher is readily available.
 This Hot Work Permit is required for any operations involving open flames or producing heat and/or sparks. This work includes, but is not limited to, welding, brazing, cutting, grinding, soldering, burning pipe, torch-applied roofing, or thermal cutting.

Name: _____ Date worked by: _____
 Supervisor/Building and floor: _____ Name: (print) and signature of person doing hot work: _____
 Work to be done: _____ I certify that the above location has been examined, the precautions outlined on this Hot Work Permit have been taken, and permission is granted for this work.
 This permit: This required _____ Name: (print) and signature of person authorizing individual (PAI): _____
 THIS PERMIT IS GOOD FOR ONE DAY ONLY

- Remove or shield from sparks all potential fuels within 11 m (35 ft) of the work area. (In this case, the paint cart and palletized storage have been moved.)
- Empty racks on which the work is to be done of all storage.
- Close fire doors and seal floor openings such as the area surrounding process piping with noncombustible caulking.
- Cover heavy combustible storage that is impractical to move with the fire-resistant tarpaulin.

**OVER
45,000
Certificates
Earned**

ONLINE COURSE

Objectives

When you have completed this course, you should be able to:

- Identify relevant standards, regulations, and

What is Hot Work?

Any activity that involves:

- Flame
- Spark production
- Heat

Recognition: Components of Fire

Ignition
Oxygen
Fuel

Welding • Grinding
Cutting • Soldering

"The online program was outstanding. I took my time, took notes, and passed the exam in no time. I would recommend this program to anyone." ~ Phillip Johns




3-hour In-person Classroom or 2-hour Online Learning



NFPA 51B

Standard for Fire Prevention During Welding, Cutting, and Other Hot Work

2019



RESEARCH

Structure Fires Started by Hot Work

Significant Study Shows



RESEARCH

Structure Fires Started by Hot Work Yearly Breakdown

Top causes of structure fires started by hot work include:

- Welding torches (34%)
- Cutting torches (24%)
- Soldering equipment (16%)
- Burners (11%)
- Heat treating equipment (11%)
- Other (2%)

HOT WORK FIRE SAFETY

WHAT IS IT?

Hot work is any process involving flame, spark, or heat production. Typically, this includes: cutting and burning, welding, soldering, heat treating, grinding or chipping, drilling or tapping, and torch-applied roofing.

← NFPA 51B covers hot work safety. Take a look: www.nfpa.org/51b

WHO NEEDS TO KNOW?

- Construction Contractors
- Welders
- Sheet-Metal Workers
- Plumbers
- Pipe-Fitters
- Iron Workers
- Utility Workers
- Electrical Workers
- Roofers
- AHJs / Fire Service

WHY IS IT IMPORTANT?

- 4,440 Structure Fires Involve Hot Work Per Year
- 42% of Fires Occur In or On Homes
- 12 Civilian deaths are caused per year from these fires
- 208 Civilian injuries are caused per year from these fires
- \$287M in direct property damage results from these fires per year

Home Fires / Non-Home Incidents

Peak Areas:

- Home Fires: Wall assemblies, Concealed spaces, Basements, Attics
- Non-Home Incidents: Exterior roof surfaces, Processing/manufacturing areas

First Ignited:

- Structural members, Framing, insulation
- Flammable combustible liquids, gases, and exterior roof coverings or finish

From the Structure Fires Caused by Hot Work NFPA Report: www.nfpa.org/hotworkreport

FACT SHEET

HOT WORK SAFETY

Hot work is a leading cause of fire-related deaths every year, with 4,440 structure fires involving hot work and 208 civilian injuries caused per year from these fires. The NFPA 51B Standard for Fire Prevention During Welding, Cutting, and Other Hot Work is the only national standard that provides a comprehensive set of requirements for hot work safety.

Who Needs to Know?

Construction Contractors, Welders, Sheet-Metal Workers, Plumbers, Pipe-Fitters, Iron Workers, Utility Workers, Electrical Workers, Roofers, AHJs / Fire Service.

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RESEARCH

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www.nfpa.org/hotwork

Thank you.

Additional Resources

- Hot Work Safety Certificate Online Training
 - Available in English and Spanish
- Hot Work Safety Certificate Classroom Training
- NFPA Hot Work Certificate Verification Database
- Hot Work Downloadable Fact Sheet & Infographic

Visit www.nfpa.org/hotwork to learn more.

